

*PIMELODUS ANTIQUS*. Indicated by many fragments of pectoral spines and fragments of jaws, found with remains of *Lepidosteus atrox*, etc., at the junction of the Big Sandy and Green Rivers. The size of the species was from a foot to eighteen inches.

*PHAREODUS ACUTUS*. Represented by a number of jaw fragments with teeth found in association with the remains above noticed, at the junction of the Big Sandy and Green Rivers. The dentary bone contains a single closely crowded row of long cylindrical teeth, without any small ones behind. The shaft of the teeth is straight and not curved as in *Amia*, but the short conical points are abruptly bent inwardly. The premaxillaries contain a similar row of teeth, but with the points scarcely bent. Nine teeth occupy a space of seven and a half lines in a fragment of a dentary bone, the longest tooth being  $2\frac{1}{2}$  lines. Seven teeth occupy a space of seven lines in a fragment of a premaxillary, the first of the series being 3 lines long.

---

FEBRUARY 11.

The President, Dr. RUSCHENBERGER, in the chair.

Thirty-two members present.

Mr. THOMAS MEEHAN presented an apple, which was borne by a tree at Kittaning, in Pennsylvania, and which tree never produced any flowers in the popular acceptance of the term; but always yielded an abundance of fruit. Mr. M. said there was no novelty in this circumstance, as similar cases had been placed on record; but the specimen furnished a practical illustration of some morphological truths which could not often be demonstrated in the way this afforded the opportunity of doing.

It was admitted that a fruit was a branch with its accessory leaves, transformed. The apple fruit was made up of a series of whorls of leaves comprising five each. Cutting an apple through we found a series of five formed the carpels containing the seeds. Several series of whorls, very much retarded in development, probably formed the stamens, but this could not be well seen in the apple fruit, as they seemed to be almost absorbed in the corolla series. This was the next in order that appeared in the divided apple—the green curved fibrous line which we find in all apples midway between the “core” and the “rind” is the dividing line between the series which forms the corolla, and the outer series which forms the calyx. In this tree there are no pistils, the series which usually goes to make up this part of the fruit structure being either very rudimentary or entirely wanting. Hence there was no “core” to the fruit. The result of this want of development was that the usual calyx basin of the apple was in

this case occupied by a cavity three-quarters of an inch across. There were no petals; but in place five gland or rather bud-scale-like processes, at regular distances, on the edge of the green fibrous outline before referred to. The outer whorl, which usually forms the calyx, was almost asepalous, as a mere scarios membrane marked the place where the calyx segments or sepals should have appeared. It was so easy in this specimen to trace the dividing line between the outer or calycine whorl and the inner or corolline whorl, which uniting and becoming succulent formed the popular apple fruit, that it was worthy of note in this connection.

But the most interesting feature in this specimen was what were probably, from their similarity in appearance, cork cells, formed abundantly on the outside of the apple. It would seem, that, with the lack of development in the inner series of whorls necessary to the perfect fruit, those which remained were liable to take on somewhat the character of bark structure.

Dr. LECONTE mentioned that he had published in the Proceedings for December, 1866, a paper entitled "List of Coleoptera collected near Fort Whipple, Arizona, by Dr. Elliott Cones, U. S. A., in 1864-65." He had recently received a letter from Dr. Edward Palmer, stating that the specimens had been collected mostly by the latter, and in accordance with the desire of Dr. P. the fact was now recorded.

---

FEBRUARY 18.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-seven members present.

The following paper was presented for publication:—

"Description of Mexican Ichneumonidæ, Part II." By E. T. Cresson.

Mr. THOMAS MEEHAN presented specimens of leaves of a Begonia on which minute folioles appeared as densely as hair all over the upper surface, while the leaf was on the growing plant. The little growths first appeared as succulent hairs, and these hair-like processes subsequently divided or produced the leafy blades from their apices.

Mr. M. remarked that hairs were at any rate structurally but graded thorns, of which bristles were an intermediate stage. Spines often bore leaves, but it was unusual for thorns to do so. It might not be that these leaf-bearing processes were really hairs though they had that appearance.

He further observed that last year he called the attention of the Academy to the fact that in some Scrophulariaceous plants,